

REMARKS

Claims 1-12 are pending in this application. Applicants respectfully request reconsideration of the above-identified application, in view of the following remarks.

Applicants thank the Examiner for indicating that claims 5-8 contain allowable subject matter, and would be allowable if claim 5 is rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections – 35 U.S.C. § 103

Claims 1-2 and 4 have been rejected under 35 U.S.C. § 103(a), as being unpatentable over Noriaki, et al. (JP 10-271490) (“Noriaki”), in view of Noso (JP 3-99952) (“Noso”). Claim 3 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Noriaki and Noso, as applied to claim 1 above, and further in view of Choi (US Patent No. 5,121,200). Claim 9-11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Noriaki and Noso, as applied to claim 1 above, and further in view of Atsushi (JP 11-016097). Claim 12 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Noriaki Noso, and Atsushi, as applied to claim 9 above, and further in view of JP-01147983 (“JP ‘983”). Applicants respectfully submit that independent claim 1 and the claims directly and indirectly dependent therefrom are patentably distinct from the cited references, in view of the following remarks.

It is acknowledged in the Office Action that, “Noriaki does not particularly disclose transforming the input image on the basis of the positional relationship between respective pixels of the output image to be displayed....” (See,

Office Action, page 2, ¶ 7-page 3, ¶ 1). However, it is alleged in the Office Action that “Noso teaches [a] surrounding situation monitor for vehicle comprising a display control means for transforming the input image on the basis of the positional relationship between respective pixels....[citing Noso’s] Purpose: and Constitution).” (See, Office Action, page 3, ¶ 2). Accordingly, the rejection is based on the combination of Noriaki and Noso references. Applicants respectfully submit that a prima facie case of obviousness has not been established.

Applicants submit that the disclosure of the references must be considered as a whole and that in light of the teachings of the Noriaki and Noso references are not in fact combinable. The MPEP § 2143 indicates, “To establish a prima facie case of obviousness...there must be some suggestion or motivation...to combine reference teachings.” (See, MPEP § 2143).

However, Applicants submit that the Noriaki and Noso references disclose disparate teachings thought would preclude one of ordinary skill in the art from combining the references. More specifically, Examiner states that a reverse mapping, a mapping from output pixels to input pixels is disclosed in the Noso reference. However, Noso’s functions are based on the presumption for reverse-mapping that the input function and the output function are both continuous and the number of elements is infinite. However, the instant application is directed to processing pixel-based images, for example, images processed by CCD cameras or

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LCD panels, in which the input pixels and the output pixels are both discrete and the number of elements is finite.

In the following example based on Noso's mapping, Noso assumes a mapping in real numbers from $A1(x,y) = ([0,1],[0,1])$ to $B1(x,y) = ([1,3],[1,3])$.

This mapping is defined between continuous functions and the number of elements is infinite, therefore the elements in A1 and the elements in B1 are aligned one-to-one.

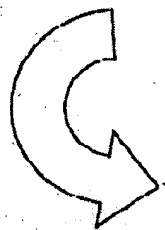
Thus the reverse mapping (from B1 to A1) is self-evident. For example:

Mapping in Noso (JP3-99952)

$$B1(x,y) = A1(x,y)$$

$$x = \frac{a_1 X + b_1 Y + c_1}{d_1 X + e_1 Y + f_1}$$

$$y = \frac{g_1 X + h_1 Y + k_1}{d_1 X + e_1 Y + f_1}$$

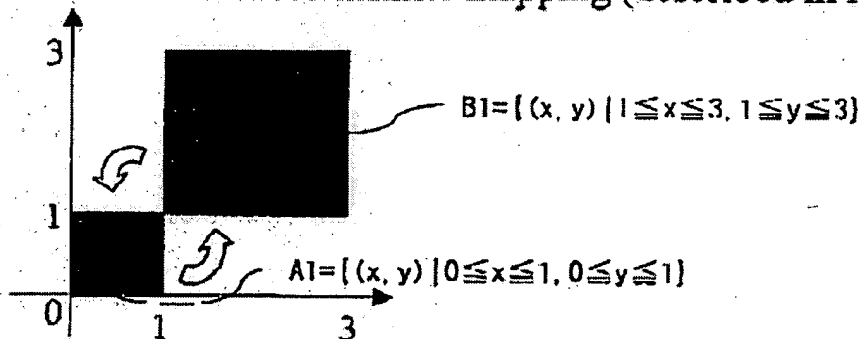


$$\begin{cases} X=2X+1 \\ Y=2Y+1 \end{cases}$$

$$\begin{cases} a_1=2, b_1=0, c_1=1, \\ d_1=0, e_1=0, f_1=1, \\ g_1=0, h_1=2, k_1=1 \end{cases}$$

— choose these set of coefficients as an example

- Case of continuous/infinite mapping (described in Noso)



The reverse mapping of the above mapping is self-evident:

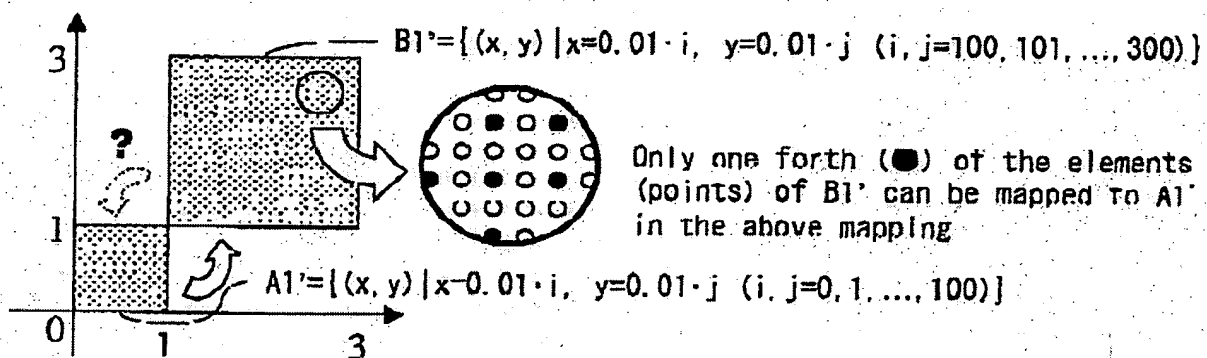
$$\begin{cases} X=(X-1)/2 \\ Y=(Y-1)/2 \end{cases}$$

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In contrast, in the example applied to Noriaki's mapping assumes a mapping in discrete functions from $A1' (x,y) = ([0.01, 0.02, 0.03 \dots 1.00], [0.01, 0.02, 0.03 \dots 1.00])$ to $B1' (x,y) = ([1.00, 1.01, 1.02 \dots 3.00, 1.00, 1.01, 1.02 \dots 3.00])$. The functions are not continuous, and the number of elements in $A1'$ and $B1'$ are both finite and distinct. For example:

- Case of discrete/finite mapping (described in Noriaki)



The elements cannot be aligned in a one-to-one ratio and it is not possible to conduct a viable reverse mapping (from output pixels to input pixels). Only one forth of the elements in $B1'$ can be mapped with $A1'$. Thus, the reverse mapping (from $B1'$ to $A1'$) in Noriaki is not viable.

Therefore, the Noso and Noriaki references do not establish a prima facie case of obviousness for a rejection of claim 1, which recites, "the display control means transforms the input image on the basis of the positional relationship between respective pixels of the output image to be displayed on the monitor and respective pixels of the input image corresponding to the output image." (emphasis added).

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Accordingly, Applicants respectfully submit that independent claim 1 is patentably distinct from the cited references, taken alone or in combination for at least this reason. Further, Applicants submit that claims 2-12, which are directly or indirectly dependent on independent claim 1, are patentably distinct from the cited references for at a similar reason. Therefore, Applicants request withdrawal of these grounds of rejections.

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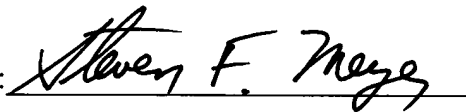
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CONCLUSION

It is now believed that all pending claims are in condition for allowance. In view of these remarks, an early and favorable reconsideration is respectfully requested.

Respectfully submitted,
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